

FACSIMIL	E TRANSMITTAL SHEET
то: ATTN: Esther Dove	FROM: Matthew W. Baca, Reg. No. 42,277
COMPANY: U. S. Patent and Trademark Office	DATE: August 31, 2006
FAX NUMBER: 571.273.0299	TOTAL NO. OF PAGES INCLUDING COVER:
PHONE NUMBER:	sender's reference number: FR919990110US1
RE: Appeal Brief	your reference number 09/696,518
☐ URGENT ☐ FOR REVIEW ☐ PL	ease comment    Please reply     Please recycle
NOTES/COMMENTS:	
·	iled 04/10/2006 in response to the Notification of ached hereto.

Respectfully submitted, M. Baca/vf

This fax from the law firm of Dillon & Yudell LLP contains information that is confidential or privileged, or both. This information is intended only for the use of the individual or entity named on this fax cover letter. Any disclosure, copying, distribution or use of this information by any person other than the intended recipient is prohibited. If you have received this fax in error, please notify us by telephone immediately at 512.343.6116 so that we can arrange for the retrieval of the transmitted documents at no cost to you.

USPTO 4/10/2006 6:41 PM Auto-reply fax to 51234364 COMPANY:

**Auto-Reply Facsimile Transmission** 



TO:

Fax Sender at 5123436446

Fax Information

Date Received: · Total Pages: >

APPLICATION OF: 37 PK DILLON & YUDELL LLP TAX No. 5123438446

4/10/2006 6:38:57 PM [Eastern Daylight Time]

XC1BM4/12/06

5 (including cover page)

ADVISORY: This is an automatically generated return receipt confirmation of the facsimile transmission received by the Office. Please check to make sure that the number of pages listed as received in Total Pages above matches what was intended to be sent. Applicants are advised to retain this receipt in the unlikely event that proof of this facsimile transmission is necessary. Applicants are also advised to use the certificate of facsimile transmission procedures set forth in 37 CFR 1.8(a) and (b), 37 CFR 1.6(f). Trademark Applicants, also see the Trademark Manual of Examining Procedure (TMEP) section 306 et seq.

Received Cover Page

			•	
			•	
	•			

70	Factor
Examiner Christian A. Lo	
US Patent and Trademark	
2131	23.3
671.279.8300	AFILCATION EXIAL NO
Response to Notification Compliant Appeal Briof	of Nen FR919990110US1
Ø UROBHT ☐ POR REVIEW	☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECTOR
1	THE CONTROL   FEW CREEK     FEW CREEKE
KOTES/COMMENTS:	
, 5.7	Water to the state of the state
7 4	
	And the state of t
•	is the second of
CERTIFICATE O	PPACSIMILE TRANSVIRSION LINDER 37 C.F.R. & L.SIA)
	HIS CORRESPONDENCE IS BEING FACSIMILE TRANSMITTED TO
	EMARK OFFICE ON APRIL 10 2006
THE ON' WIDNI WAS INVE	V D A . (a
BIONATURE OP MICHELLES	ANDERSON MANUEL

PAGE 15 · RCVD AT 4H0Z2CCC CETEST FIN FERSIND COVIDENTIAN! SVRLIGST D-ETARF-500 · OHR 273 1200 · CRD-S12X41XAS · OURATION (INDESEDD 1.32



USPTO FACSIMILE TRANSMITTAL SHEET				
TO: Examiner Christian A. LaForgia	FROM: Matthew W. Baca, Reg. No. 42,277			
ORGANIZATION: US Patent and Trademark Office	PATE: April 10, 2006			
ART UNIT: CONFIRMATION NO.: 2131	TOTAL NO. OF PAGES INCLUDING COVER:			
FAX NUMBER: 571.273.8300	APPLICATION SERIAL NO: 09/696,518			
ENCLOSED.  Response to Notification of Non-Compliant Appeal Brief	ATTORNEY DOCKET NO FR919990110US1			
URGENT   FOR REVIEW   PLE	EASE COMMENT PLEASE REPLY PLEASE RECYCLE			
NOTES/COMMENTS:				

#### CERTIFICATE OF FACSIMILE TRANSMISSION UNDER 37 C.F.R. § 1.8(A)

I HEREBY CERTIFY THAT THIS CORRESPONDENCE IS BEING FACSIMILE TRANSMITTED TO THE U.S. PATENT AND TRADEMARK OFFICE OXIGAPRIL 10, 2006.

SIGNATURE OF MICHELLE SANDERSON\_

This fax from the law firm of Dillon & Yudell LLP contains information that is confidential or privileged, or both. This information is intended only for the use of the individual or entity named on this fax cover letter. Any disclosure, copying, distribution or use of this information by any person other than the intended recipient is prohibited. If you have received this fax in error, please notify us by telephone immediately at 512.343.6116 so that we can arrange for the retrieval of the transmitted documents at no cost to you.

8911 N. CAPITAL OF TEXAS HWY., SUITE 2110, AUSTIN, TEXAS 78759 512.343.6116 (V) • 512.343.6446 (F) • DILLONYUDELL.COM

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

ATTY. DOCKET NO.:

IN RE APPLICATION OF:

OLIVIER DAUDE

SERIAL NO.: 09/696,518

FILED: OCTOBER 25, 2000

M/S FOR PREVENTING For: UNAUTHORIZED SERVER INTERFERENCE IN AN INTERNET PROTOCOL

NETWORK

FR919990110US1

CHRISTIAN A. LA FORGIA EXAMINER:

## RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF UNDER 37 C.F.R. 41.37

Mail Stop Appeal Briefs - Patents Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

This Appeal Brief is submitted in response to a Notification of Non-Compliant Appeal Brief mailed on March 22, 2006 for the Appeal Brief filed on June 17, 2005. No fee is required to file this Compliant Appeal Brief as the fee for filing the original Appeal Brief was paid at submission. However, should any fees be required to file this Compliant Appeal Brief, please charge that fee, as well as any additional required fees, to IBM Deposit Account No. 09-0457.

#### Certificate of Transmission/Mailing

I hereby certify that this correspondence is being facsimile transmitted to the USPTO at 571-273-8300 or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450 on the date shown below.

Typed or Printed Name: Michelle Sanderson Date: \

### **REAL PARTY IN INTEREST**

The real party in interest in the present Application is International Business Machines Corporation, the Assignee of the present application as evidenced by the Assignment set forth at reel 011285, frame 0030 et. seq. of the USPTO assignment records.

## RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant, the Appellant's legal representative, or assignee, which directly affect or would be directly affected by or have a bearing on the Board's decision in the pending appeal.

# STATUS OF CLAIMS

Claims 1, 4, 6-10, 14, 17, 19-23, 27, 30, and 32-36 stand finally rejected by the Examiner, as noted in the Final Office Action dated January 19, 2005. The rejection of Claims 1. 4. 6-10. 14. 17. 19-23, 27, 30, and 32-36 is appealed.

# STATUS OF AMENDMENTS

Appellant's Amendment A filed on July 7, 2004 was entered by the Examiner as indicated in the Final Office Action. No amendment to the claims was proposed or entered subsequent to the Final Rejection dated January 19, 2005.

## SUMMARY OF THE CLAIMED SUBJECT MATTER

Appellant's invention may be implemented as a method, a system, or a computer program product operable in a dynamic host configuration protocol (DHCP) network that prevents unauthorized dynamic host configuration servers from responding to client configuration requests. The invention uses a designated server checker client that broadcasts configuration requests to draw configuration server responses which are then analyzed to detect unauthorized servers. Detected unauthorized servers are individually targeted by the server checker client with configuration requests to prevent the unauthorized servers from interacting with the network clients.

Appellant's Claim 1 provides a method for "preventing unauthorized dynamic host configuration servers from responding to client configuration requests in an Internet Protocol (IP) network." including the following steps: (1) broadcasting host configuration requests from a server checker client (see specification page 18, lines 14-15 and 27-28, describing with reference to FIG. 1 a DHCP client broadcasting a host configuration request, the first part of which is a DHCPDISCOVER message; page 21, lines 14-17, with reference to FIG. 2, describing a server detector component 207 sending requests (via broadcast as described with reference to FIG. 1) to retrieve configuration information); (2) receiving configuration offer messages from one or more dynamic host configuration servers, said configuration offer messages delivered to the server checker client responsive to the broadcast host configuration requests (page 19, lines 1-11, referring to FIG. 1, describing receipt by DHCP client 101 of configuration offer messages in response to the DHCPDISCOVER messages; page 21, lines 14-22, referring to FIG. 2, describing receipt of DHCOFFER messages returned by DHCP servers 203 and 204 responsive to configuration requests sent by checker client 205); (3) detecting an unauthorized dynamic host configuration server within said IP network in accordance with server identification data within the configuration offer messages (page 21, lines 17-22, referring to FIG. 2, describing invalid server detector 207 detecting one or more unauthorized servers within IP network 202 by comparing a "server identifier" option in the configuration offer messages with authorized server identification data in a DHCP server table 206); and (4) responsive to said detecting step, unicasting host configuration requests from said server checker client to said unauthorized dynamic configuration server such that said unauthorized dynamic host configuration server is unable to respond to configuration requests from network clients (page 21, line 24 through page 22, line 3, referring to FIG. 2, describing an invalid server denial handler component 208 sending multiple requests (including DHCPDISCOVER messages and the second part of an overall host configuration request called a DHCPREQUEST - see page 19, lines 11-17) directed to each detected unauthorized server 204).

The invention recited in Claim 14 provides a system for preventing unauthorized dynamic host configuration servers from responding to client configuration requests in an IP The system includes: (1) processing means for broadcasting host configuration requests from a server checker client (see specification page 18, lines 14-15 and 27-28, describing with reference to FIG. 1 a DHCP client broadcasting a host configuration request, the first part of which is a DHCPDISCOVER message; page 21, lines 14-17, with reference to FIG. 2, describing a server detector component 207 sending requests (via broadcast as described with reference to FIG. 1) to retrieve configuration information); (2) processing means for receiving configuration offer messages from one or more dynamic host configuration servers, said configuration offer messages delivered to the server checker client responsive to the broadcast host configuration requests (page 19, lines 1-11, referring to FIG. 1, describing receipt by DHCP client 101 of configuration offer messages in response to the DHCPDISCOVER messages; page 21, lines 14-22, referring to FIG. 2, describing receipt of DHCOFFER messages returned by DHCP servers 203 and 204 responsive to configuration requests sent by checker client 205); (3) processing means for detecting an unauthorized dynamic host configuration server within said IP network in accordance with server identification data within the configuration offer messages (page 21, lines 17-22, referring to FIG. 2, describing invalid server detector 207 detecting one or more unauthorized servers within IP network 202 by comparing a "server identifier" option in the configuration offer messages with authorized server identification data in a DHCP server table 206); and (4) processing means, responsive to detecting an unauthorized dynamic host configuration server, for unicasting host configuration requests from said server checker client to said unauthorized dynamic configuration server such that said unauthorized dynamic host configuration server is unable to respond to configuration requests from network clients (page 21, line 24 through page 22, line 3, referring to FIG. 2, describing an invalid server denial handler component 208 sending multiple requests (including DHCPDISCOVER messages and the second part of an overall host configuration request called a DHCPREQUEST - see page 19, lines 11-17) directed to each detected unauthorized server 204).

The invention recited in Claim 15 provides a computer program product for preventing unauthorized dynamic host configuration servers from responding to client configuration requests in an IP network (page 20, lines 29-31, describing implementation of checker client functionality as a computer program; page 23, lines 7-9, describing a detector 207 within a checker client 205 used to detect unauthorized dynamic host configuration servers). The program product includes instruction means for: (1) broadcasting host configuration requests from a server checker client (see specification page 18, lines 14-15 and 27-28, describing with reference to FIG. 1 a DHCP client broadcasting a host configuration request, the first part of which is a DHCPDISCOVER message; page 21, lines 14-17, with reference to FIG. 2,

describing a server detector component 207 sending requests (via broadcast as described with reference to FIG. 1) to retrieve configuration information); (2) receiving configuration offer messages from one or more dynamic host configuration servers, said configuration offer messages delivered to the server checker client responsive to the broadcast host configuration requests (page 19, lines 1-11, referring to FIG. 1, describing receipt by DHCP client 101 of configuration offer messages in response to the DHCPDISCOVER messages; page 21, lines 14-22, referring to FIG. 2, describing receipt of DHCOFFER messages returned by DHCP servers 203 and 204 responsive to configuration requests sent by checker client 205); (3) detecting an unauthorized dynamic host configuration server within said IP network in accordance with server identification data within the configuration offer messages (page 21, lines 17-22, referring to FIG. 2, describing invalid server detector 207 detecting one or more unauthorized servers within IP network 202 by comparing a "server identifier" option in the configuration offer messages with authorized server identification data in a DHCP server table 206); and (4) responsive to said detecting step, unicasting host configuration requests from said server checker client to said unauthorized dynamic configuration server such that said unauthorized dynamic host configuration server is unable to respond to configuration requests from network clients (page 21, line 24 through page 22, line 3, referring to FIG. 2, describing an invalid server denial handler component 208 sending multiple requests (including DHCPDISCOVER messages and the second part of an overall host configuration request called a DHCPREQUEST - see page 19, lines 11-17) directed to each detected unauthorized server 204).

Appellant's Claims 8, 21, and 34 include additional features that further characterize the foregoing "detecting" step (3) by reciting "wherein said checker client includes a server table having a list of authorized dynamic host configuration servers, and wherein said step of detecting an unauthorized dynamic host configuration server further comprises comparing a server identifier included in each configuration offer message with authorized server identification data in the server table" (page 21, lines 5-12 and 17-22, referring to FIG. 2, describing DHCP Server table 206 having a list of authorized DHCP servers identified by their IP addresses).

1, 4 . 36. 37.

### GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

- A. The Examiner's rejection of Claims 1, 8, 14, 21, 27, and 34 under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No. 6,424,654, issued to Daizo (Daizo hereinafter), in view of "Authentication of DHCP Messages" issued to Droms et al. (Droms hereinafter), and in further view of U.S. Pat. No. 5,884,024, issued to Lim et al. (Lim hereinafter) is to be reviewed on Appeal; and
- B. The Examiner's rejection of Claims 4, 6-7, 9-10, 17, 19-20, 22-23, 30, and 32-33, 35-36 under 35 U.S.C. §103(a) as being unpatentable over *Daizo*, in view of *Droms*, and in further view of *Lim* is to be reviewed on Appeal.

#### **ARGUMENT**

A. The rejection of Claims 1, 8, 14, 21, 27, and 34 under 35 U.S.C. §103(a) as being unpatentable over *Daizo*, *Droms*, and *Lim* is not well founded and should be reversed.

#### i. Claims 1. 14. and 27

1. The combination of *Daizo*, *Droms*, and *Lim* does not disclose each claimed feature of Claims 1, 14, and 27

The third element of each of Claims 1, 14, and 27 (represented in the following discussion by Claim 1) recites "detecting an unauthorized dynamic host configuration server within said IP network in accordance with server identification data within the configuration offer messages" (emphasis added). Paragraph 10, page 3 of the Final Office Action asserts, "Droms discloses detecting an unauthorized dynamic host configuration server within said IP network in accordance with server identification data within the configuration offer messages. (p. 3 - p. 4 'Section 3. Protocol 0' and 'Section 4. Protocol 1')." As argued by Appellants in the Response to the Final Office Action, while *Droms* does disclose a method for authenticating DHCP messages and entities, neither the "Protocol 0" nor "Protocol 1" method described by *Droms* at page 3, et seq., authenticate the server using server identification data.

Droms's "Protocol 0" depicted in section 3, pg. 3- pg. 4, utilizes an authentication token that is known (i.e. pre-specified) to both the client and server that provides mutual

authentication. The token does not contain data relating to the identity of either the client or server.

Droms's "Protocol 1" authentication protocol uses an encrypted message authentication code and not server identification data to authenticate the server. At paragraph 4, page 4 Droms explains, "... the client requests authentication in its DHCPDISCOVER message and the server replies with a DHCPOFFER message that includes authentication information. authentication information contains an encrypted value generated by the source as a message authentication code (MAC) to provide message authentication and entity authentication." (Emphasis added).

The cooperative (two-sided) aspect of Droms's "Protocol 1" authentication is explained at page 5: "... Protocol 1 requires a shared secret key for each client on each DHCP server with which that client may wish to use the DHCP protocol." Nothing in Droms suggests that the identity of the server (i.e. server identification data) is used to authenticate DHCP servers. That "server identification data" as used in Appellants' Claim 1 does not encompass any and all data that may be used to authenticate an entity, and is instead identification data specific to the server, is self-evident from the claim language as well as the support provided in the specification (see page 23, lines 27-30; page 24 lines 9-12, IP address used as the server identification data) and was emphasized by Appellants in the Response to the Final Office Action.

By using server identification data to detect unauthorized servers, Appellant's technique, in contrast to Droms's authentication protocols, does not require the two-sided authentication required when using tokens or encryption, and is instead implemented, as depicted and described with reference to FIG. 2, by a specialized "checker client" that may be inserted as a specialized application into a DHCP network without the need to otherwise alter DHCP network discourse. In the Advisory Action responsive to Appellants' Response to the Final Office Action, the Examiner provided no rebuttal to Appellants' contention that Droms fails to disclose "detecting an unauthorized dynamic host configuration server within said IP network in accordance with server identification data within the configuration offer messages." (Emphasis added).

The fourth element of Claim 1 recites a step of, "responsive to said detecting step, unicasting host configuration requests from said server checker client to said unauthorized dynamic configuration server such that said unauthorized dynamic host configuration server is

> at all the same of Marian Carlo S

unable to respond to configuration requests from network clients." (Emphasis added). Significant to the invention of Claim 1 is that the configuration requests are unicast in response to detecting an unauthorized server and that the source of the configuration requests unicast to the detected unauthorized server is "said checker client" (i.e. the client that performs the broadcasting, receiving, and detecting steps as required by the preceding claim elements).

Both the first and final Office Actions assert that at col. 2, lines 28-34, Lim discloses "unicasting host configuration requests from said server checker client to said unauthorized dynamic configuration server such that said unauthorized dynamic host configuration server is unable to respond to configuration requests from network clients". Col. 2, lines 28-34 reads as follows:

A second type of attack is known as "IP address hogging." For an attack of this type, a client system attempts to exhaust the supply of IP addresses by repeatedly obtaining IP leases from the DHCP server. Once the client system has leased all of the available IP address leases, network performance degrades as legitimate users are forced to wait for IP addresses.

While the means of the described "attack" is to deplete the supply of available IP addresses issued by the server, the attack itself is clearly client-to-client and therefore would not be launched from a "server checker client" (i.e. the DHCP client that, as expressly required by the limitations of Claim 1, performed the broadcasting, receiving, and detecting steps to detect unauthorized DHCP servers pursuant to its specialized "checker" functionality"). The characterization of the server checker client as the logical entity that performs the broadcasting, receiving, and detecting steps is a substantive and significant characterization of the "unicasting" step given that, as explained above, Appellants invention is designed to employ a logically (and possibly physically) discrete server checker client such that the logacy DHCP network components and protocols may remain unchanged. Nothing in Lim, Droms, and Daizo, individually or in any combination disclose "unicasting host configuration requests from said server checker client to said unauthorized dynamic configuration server" as "server checker client" is expressly characterized in the claims.

Given that the invention is fundamentally for detecting and disabling unauthorized servers, and with continued reference to the fourth element of Claim 1, another significant feature of the claimed invention is that the unicasting step is performed "responsive to said

p 2

detecting step." Even in combination, Lim, Droms, and Daizo do not disclose any technique or system whatsoever in which DHCP configuration requests are directed to a DHCP server in response to detecting that the server is unauthorized.

# 2. There is no motivation or suggestion in Daizo, Droms, and/or Lim to combine IP address "hogging" as described by Lim with the teachings of Droms

Lim discloses a method and apparatus for reducing the probability of IP address misuse among clients of a DHCP server. As explained by Lim at col. 2, lines 28-34, one such problem is known as "IP address hogging" in which a client attempts to exhaust the supply of IP addresses by repeatedly obtaining IP leases from a DHCP server. "IP address hogging" is described by Lim in this passage as an undesirable network phenomena and not a process step deliberately undertaken for any purpose whatsoever. The P address hogging attack phenomena described by Lim is clearly an attack directed from a malicious client against other clients. Nothing in this passage or elsewhere in Lim discloses sending configuration requests, or any other type of messages, to a DHCP server in response to detecting that the DHCP server is question is unauthorized.

Appellants disagree with the assertion in reference item 13 on page 4 of the Final Office Action that the disclosure of Droms at page 2 provides motivation to combine the "IP address hogging" problem cited by Lim as a remedial feature of any kind. Similar to Lim, Droms describes IP address hogging as a problem and not a remedial feature to be used to "silence" an unauthorized DHCP server with respect to non-checker clients. Moreover, Droms does not supply the motivation since Droms's authentication protocols are implemented by "real" DHCP clients in a self-protective manner (i.e. since the authentication protocol is implemented across the network by the real clients, there is no need to expend bandwidth attempting to "silence" a non-authentic server).

Absent Appellants' disclosure and claims, there is clearly a lack of motivation or suggestion in any of the foregoing references to combine a described problem (i.e. IP address hogging) as a remedial feature in either or both Droms and Daizo.

### ii. Claims 8, 21, and 34

١

The combination of Daizo, Droms, and Lim does not disclose each claimed feature of Claims 8, 21, and 34

Claim 8, representative also of Claims 21 and 34, recites "wherein said checker client includes a server table having a list of authorized dynamic host configuration servers, and wherein said step of detecting an unauthorized dynamic host configuration server further comprises comparing a server identifier included in each configuration offer message with authorized server identification data in the server table." This feature further underscores the distinction between using "server identification data" in Appellants' invention and the non-server specific authentication information used by *Droms's* authentication protocols.

Reference item 17 on page 5 of the Final Office Action asserts that the foregoing element is disclosed by Droms "Protocol 0" described in section 3 on pages 3 and 4. Nothing in the description of "Protocol 0" discloses any "list of authorized dynamic host configuration servers" or "comparing a server identifier included in each configuration offer message with authorized server identification data in the server table" to detect an unauthorized server.

The rejection of Claims 4, 6-7, 9-10, 17, 19-20, 22-23, 30, and 32-33, 35-36 under 35 В. U.S.C. §103(a) as being unpatentable over Daizo, Droms, and Lim is not well founded and should be reversed.

## Claims 4, 6-7, 9-10, 17, 19-20, 22-23, 30, and 32-33, 35-36

Appellants do not concede than the present combination of Daizo, Droms, and Lim actually teaches or suggests any of the features of these dependent claims; however, these claims are directly or indirectly dependent on the independent claims 1, 14, and 27 which, as contended above by Appellants, have been incorrectly rejected under the references. By extension, the rejections of claims 4, 6-7, 9-10, 17, 19-20, 22-23, 30, and 32-33, 35-36 are not well founded and should be reversed.

. Or our Burn

#### CONCLUSION

Appellant has pointed out with specificity the manifest error in the Examiner's rejections, and the claim language that renders the invention patentable over the combinations of references. Appellant, therefore, respectfully requests that this case be remanded to the Examiner with instructions to issue a Notice of Allowance for all pending claims.

Respectfully submitted,

Matthew W. Baca Reg. No. 42,277

DILLON & YUDELL LLP

8911 N. Capital of Texas Highway

Suite 2110

Austin, Texas 78759

512-343-6116

ATTORNEY FOR APPELLANT

### **CLAIMS APPENDIX**

1. A method for preventing unauthorized dynamic host configuration servers from responding to client configuration requests in an Internet Protocol (IP) network, said method comprising the steps of:

broadcasting host configuration requests from a server checker client;

receiving configuration offer messages from one or more dynamic host configuration servers, said configuration offer messages delivered to the server checker client responsive to the broadcast host configuration requests;

detecting an unauthorized dynamic host configuration server within said IP network in accordance with server identification data within the configuration offer messages; and

responsive to said detecting step, unicasting host configuration requests from said server checker client to said unauthorized dynamic configuration server such that said unauthorized dynamic host configuration server is unable to respond to configuration requests from network clients.

- 2. (Cancelled)
- 3. (Cancelled)
- 4. The method of claim 1, said unicasting host configuration requests comprising unicasting a plurality of IP address renewal requests to said unauthorized dynamic host configuration server.

The Athenance

i.i.

- 5. (Cancelled)
- 6. The method of claim 4, wherein each IP address renewal request includes:
  a client medium access control (MAC) address that is not included within a range of valid
  MAC addresses utilized within the IP network.

- 7. The method of claim 4, wherein each IP address renewal request includes a client IP address that is not included within a range of valid IP addressed utilized in the IP network.
- 8. The method of claim 1, wherein said checker client includes a server table having a list of authorized dynamic host configuration servers, and wherein said step of detecting an unauthorized dynamic host configuration server further comprises comparing a server identifier included in each configuration offer message with authorized server identification data in the server table.
- 9. The method of claim 8, wherein said comparing a server identifier included in each configuration offer message with authorized server identification data in the server table further comprises the retrieving an IP address from each configuration offer message.
- 10. The method of claim 8, wherein said server table includes an IP address for each authorized dynamic host configuration server.

Jan 1997 - ANCHOL XIII

Secretary of the state of

the way with the same

and the state of the state of the

to the company of the

The state of the s

and part familiar better an

- 11. (Cancelled)
- (Cancelled) 12. ·
- (Cancelled) 13.
- A system for preventing unauthorized dynamic host configuration servers from 14. responding to client configuration requests in an Internet Protocol (IP) network, said system The state soul and the sould comprising:

processing means for broadcasting host configuration requests from a server checker 4. client:

processing means for receiving configuration offer messages from one or more dynamic host configuration servers, said configuration offer messages delivered to the server checker client responsive to the broadcast host configuration requests;

and the second second

processing means for detecting an unauthorized dynamic host configuration server within said IP network in accordance with server identification data within the configuration offer messages; and

processing means, responsive to detecting an unauthorized dynamic host configuration server, for unicasting host configuration requests from said server checker client to said unauthorized dynamic configuration server such that said unauthorized dynamic host configuration server is unable to respond to configuration requests from network clients.

- 15. (Cancelled)
- 16. (Cancelled)
- 17. The system of claim 14, said processing means for unicasting host configuration requests comprising processing means for unicasting a plurality of IP address renewal requests to said unauthorized dynamic host configuration server.

115 4

- 18. (Cancelled)
- 19. The system of claim 17, wherein each IP address renewal request includes:
  a client medium access control (MAC) address that is not included within a range of valid
  MAC addresses utilized within the IP network.
- 20. The system of claim 17, wherein each IP address renewal request includes a client IP address that is not included within a range of valid IP addressed utilized in the IP network.
- 21. The system of claim 14, wherein said checker client includes a server table having a list of authorized dynamic host configuration servers, and wherein said processing means for detecting an unauthorized dynamic host configuration server further comprises processing means for comparing a server identifier included in each configuration offer message with authorized server identification data in the server table.

Page 14 of 19

- 22. The system of claim 21, wherein said processing means for comparing a server identifier included in each configuration offer message with authorized server identification data in the server table further comprises processing means for retrieving an IP address from each configuration offer message.
- The system of claim 21, wherein said server table includes an IP address for each 23. authorized dynamic host configuration server.
- (Cancelled) 24.
- 25. (Cancelled)
- 26. (Cancelled)
- 27. A program product for preventing unauthorized dynamic host configuration servers from responding to client configuration requests in an Internet Protocol (IP) network, said program and a year with a second product comprising:

\* (45) (86) (10) 

instruction means for broadcasting host configuration requests from a server checker client; ; ;

instruction means for processing configuration offer messages received from one or more dynamic host configuration servers, said configuration offer messages delivered to the server checker client responsive to the broadcast host configuration requests;

instruction means for detecting an unauthorized dynamic host configuration server within said IP network in accordance with server identification data within the configuration offer messages; and

instruction means, responsive to said detecting, for unicasting host configuration requests from said server checker client to said unauthorized dynamic configuration server such that said unauthorized dynamic host configuration server is unable to respond to configuration requests from network clients.

28. (Cancelled) william a Mark we

- 29. (Cancelled)
- 30. The program product of claim 27, said instruction means for unicasting host configuration requests comprising instruction means for unicasting a plurality of IP address renewal requests.
- 31. (Cancelled)
- 32. The program product of claim 30, wherein each IP address renewal request includes:
  a client medium access control (MAC) address that is not included within a range of valid
  MAC addresses utilized within the IP network.
- 33. The program product of claim 30, wherein each IP address renewal request includes a client IP address that is not included within a range of valid IP addressed utilized in the IP network.
- 34. The program product of claim 27, wherein said checker client includes a server table having a list of authorized dynamic host configuration servers, and wherein said instruction means for detecting an unauthorized dynamic host configuration server further comprises:

instruction means for comparing a server identifier included in each configuration offer message with authorized server identification data in the server table.

- 35. The program product of claim 34, wherein said instruction means for comparing a server identifier included in each configuration offer message with authorized server identification data in the server table further comprises instruction means for retrieving an IP address from each configuration offer message.
- 36. The program product of claim 34, wherein said server table includes an IP address for each authorized dynamic host configuration server.

2.1

- 37. (Cancelled)
- 38. (Cancelled)
- 39. (Cancelled)

## **EVIDENCE APPENDIX**

Other than the Office Action(s) and reply(ies) already of record, no additional evidence has been entered by Appellants or the Examiner in the above-identified application which is relevant to this appeal.

## RELATED PROCEEDINGS APPENDIX

There are no related proceedings as described by 37 C.F.R. §41.37(c)(1)(x) known to Appellants, Appellants' legal representative, or assignee.

PTO/SB/122 (09-03)

Approved for use through 11/30/2005. OMB 0651-0035
U.S. Petent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unloss it displays a valid OMB control number.

## CHANGE OF **CORRESPONDENCE ADDRESS** Application

Address to: Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450.

Application Number	09/696,518			
Filing Date	10/25/2000			
First Named Inventor	Olivier Daude			
Art Unit	2131			
Examiner Name	Christian A. LaForgia			
Attorney Docket Number	FR919990110US1			

Please change the Correspondence	Address for the above-iden	tified patent app	lication to:			
Contract Months of			• •			
✓ Customer Number :	45832					
		•				!
OR		2 17 15 15 15 15 15 15 15 15 15 15 15 15 15	ranse f		<del></del> -	
Firm or Individual Name	<b>v</b> .					
Address	-	1. J. M. 1.	J (			
Address	The state of the s					
	• • • • • • • • • • • • • • • • • • • •				1	
City	·	State	* * * * * * * * * * * * * * * * * * * *	Zip	1	<del> </del>
Country						
Telephone	•	Fax	-			
This form cannot be used to change	the data accordated with a	Lightomor Niverb	or To ébango	bo		
data associated with an existing Cus	tomer Number use "Reques	at for Customer i	Vumber Data	ii ie		
Change" (PTO/SB/124).	•					
I am the:	3. r . * .	the second	· . W			
Applicant/Inventor						•
Assignee of record of	he entire interect					
	FR 3.73(b) is enclosed. (For	m PTO/SB/96).				
Attorney or Agent of re	cord. Registration Number	42,277	raise of the contract of the c			_,
Attorney or Agent of record. Registration Number 42,277  Registered practitioner named in the application transmittal letter in an application without an						
executed oath or decla	ration. See 37 CFR 1.33(a)	(1). Registration	Number	1 WILLIOUS		<b></b> '
Typed or Printed		: - : .				
Name MATTHEW W. BACA		1	•			·
Signature ////	2					
Date 04/10/06		Telephone	512.343.6116			
NOTE: Signatures of all the inventors or assigned forms if more than one signature is required, see	es of record of the entire intere	st or their represer	ijajnė(s) are redr	stred. Sub	mit multiple	
7 *Total of 1 forms are s		,				

This collection of information is required by 97 CFR 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450. Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need essistence in completing the form, call 1-800-PTO-9199 and select option 2.